farmtalk

This article contains information most relevant to the less than 350 mm rainfall mallee farming region

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Mallee Sustainable Farming Inc. (SA NSW VIC)

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Adoption and management of grazed cereals to reduce wind erosion

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The issue

The last few seasons have been very challenging as a result of low and variable rainfall. Higher global fertiliser prices and farm input costs in general have meant investment in pasture management and the establishment of new pastures has drastically decreased. The combination of all these factors has led to the potential for greater wind erosion on pasture paddocks. Increasing sheep and lamb numbers as a result of higher market prices has exacerbated the problem.

The key opportunity is to use sown cereals as the 'pasture' phase as a replacement for the traditional pasture. Historically many land managers have sown 'some crop for early feed' but it has been low input, minimal maintenance and often with inefficient grazing management.

The project had two main objectives:-

Objective 1: Increase the adoption of grazed cereals in the South Australian Mallee.

The aim was to increase the area of grazing land with a sufficient level of year round soil surface cover to minimise soil wind erosion.

Demonstration sites were established at Bow Hill and North Lameroo with land managers who had varying experiences with sown crop as pasture. The sites utilized new grazing strategies aided with the use of electric fencing.

The sown cereal at the Bow Hill site was rotationally grazed heavily during winter then the cereal weed mixture spray topped in spring with subsequent controlled grazing to maintain soil cover over summer.

The North Lameroo site was managed as a sown crop with full herbicide applications, rotationally grazed heavily, and then allowed to run to head to be harvested. The stubble provided soil cover over summer.

Objective 2: Improve cereal grazing methods to increase year round soil surface cover in pasture paddocks.

The sowing of cereals for 'feed' to be grazed has been a common practice in the region for many years, often sown with little soil preparation, minimal weed management, if any and at a low seeding rate.

What we know

Grazing management of these sown cereals was traditionally the same as for 'normal' pasture with a low stocking intensity system. Feed value, feed amount and grazing potential were under utilised resulting in a reduced return on investment.

What it means

As a result of more efficient grazing management, intensive rotational grazing using electric fencing meant feed utilisation was improved. This left enough soil cover to minimise wind erosion and clearly demonstrated improvements in soil cover condition. In lower rainfall seasons the improvement is even more noticeable.

Effective electric fencing and mechanical fencing systems with the smaller sized paddocks provided for rotational grazing that greatly increased grazing and feed utilisation relative to crop growth. Feedback from participating land managers indicated a key benefit from the high stocking rates provided the opportunity to 'spell' other grazing paddocks to allow them to better establish, particularly the medics, which in turn has allowed good seed set and soil cover levels leading into summer

The project demonstrated the use of cheap and effective forms of electric fencing with the assistance of a mechanical device to assist with fence erection and pick up, delivered from a ATV motor bike. These new fencing technologies were shown to be relatively quick and efficient to erect and dismantle. One of their best features being that they require modest financial investment to fence the larger cropping sized paddocks into smaller more efficiently sized units.

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Workshops and paddock walks provided great opportunities for learning and discussion amongst land managers and guest technical experts. This greatly increased their capacity to assess new technologies and consider risk management strategies to maximise financial returns while enhancing sustainable soil cover levels.

Where to next

Planting cereals early at the season break, with high seeding rates, adequate fertiliser and weed control can greatly increase 'pasture' production and quality.

Good grazing management is required to maximise returns from the investment and this may require temporary electric fencing to achieve this outcome in large cropping paddocks. Mechanical fence systems are available to assist in this approach.

This 'pasture' system provides the opportunity for other pasture paddocks to be 'spelled' during the critical autumn break-pasture establishment phase. Particularly good results can be achieved with slow growing medic pastures. Including a grazed cereal in pasture rotations makes good sense.

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Government of South Australia

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